

Discussing alcohol

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Final conclusion

To conclude, the findings described in this thesis support the idea that community support can bolster the implementation of alcohol measurement and brief advice in Latin America. The development of community support actions and their implementation requires actively involving local stakeholders and champions, and developing clear implementation and support actions, for instance, those described in this thesis. Our results show that community support also leads to increasing the health care providers' self-efficacy to deliver the intervention, given that they are aware of that community support. Economically, the costs of alcohol measurement and brief advice in the three countries were comparable, including the costs of the implementation strategies – community support and training. Overall, based on the example of Mexico, it is expected that scaling up alcohol measurement and brief advice at a national level may result in a positive return-on-investment. The next challenge, however, will be to communicate these results to policymakers in order to translate them into national actions.

Impact paragraph

Alcohol consumption is expected to increase in the Latin American region in the following decade, making research regarding ways to promote a reduction of alcohol consumption at the population level highly relevant and timely. This thesis contributes to a better understanding of how alcohol measurement and brief advice – an alcohol control strategy that has been shown to be clinically- and cost-effective - can be implemented and scaled up, by focusing on the example of three Latin American countries: Colombia, Mexico, and Peru. For this, we explored 1) whether community support can play a role in supporting the implementation of alcohol measurement and brief advice, and 2) the needed financial investments and expected financial returns of scaling up an alcohol measurement and brief advice programme at the country level. In this final paragraph, we mention some of the thesis' most important results and reflect on their dissemination and relevance for practice, research, and society.

Findings

Community support. To stimulate the adoption and implementation of alcohol measurement and brief advice, community support can be used as an implementation strategy. Community support refers to activities carried out in a wider setting (e.g., a neighbourhood, workplace, school, or municipality) to help people perform a certain behaviour. In this thesis, we explored and identified five types of community support activities that can be used in the context of alcohol measurement and brief advice. These were: 1) the development of Community Advisory Boards which include local stakeholders; 2) the involvement of project champions to support the adoption and maintenance of the programme; 3) the implementation of adoption mechanisms to stimulate buy-in among potential participants; 4) implementation of support systems to help with dealing with potential barriers; 5) implementation of communication campaigns in order to promote the programme.

The next step, after the development of community support activities, was to assess whether community support has an impact on the adoption and maintenance of alcohol measurement and brief advice in primary health care centres. In other words, whether health care providers who received community support were more likely to address the topic of alcohol consumption with their patients. For this, we used longitudinal data, or in other words, we compared the number of patients being given alcohol measurements, by the same health care providers, before and after community support was implemented. We also compared these numbers with primary health care centres in which no community support was given (also called 'control groups'), in order to be more confident about the correctness of our results. We found that health care providers who received community support did indeed deliver alcohol measurement to more patients, compared to health care providers who did not receive community support. This indicates that community support may be an effective strategy to stimulate health care providers to implement alcohol measurement and brief advice in their routine practice.

We also wanted to see how community support impacts health care providers to implement alcohol measurement and brief advice. Our statistical analyses showed that health care providers receiving community support increased their confidence in their ability (also called 'self-efficacy') to address the topic of alcohol with their patients. Moreover, we found that self-efficacy increased particularly in health care providers who were aware of the community support they received. In other words, our results indicate that community support may lead to more self-efficacy in health care providers to deliver alcohol measurement and brief advice to their patients, but for this to happen, health care providers need to become/be made aware of the community support that is offered.

Economic costs and returns. We also analysed the economic costs of implementing alcohol measurement and brief advice in the three SCALA countries. First, the relevant cost categories were identified, for example, salaries of the health care providers and materials offered to patients. We also calculated the costs of implementation strategies, namely community support and training of providers, and noticed that the costs were relatively comparable in the three countries. Finally, the financial costs were compared to the financial returns, in order to assess whether scaling up alcohol measurement and brief advice is worth the investments. For this, we used the example of Mexico. The results showed that, over a period of 10 years, alcohol measurement and brief advice would lead to a return-on-investment of up to 110%.

This return-on-investment includes the estimated costs of community support, along with the training of health care providers, indicating that these can be cost-effective implementation strategies in the context of alcohol measurement. Additionally, our study showed that scaling up alcohol measurement and brief advice in Mexico can result in up to 16,000 avoided alcohol-attributable deaths over a period of 10 years. This translates into an investment of up to Int\$26,000 per avoided alcohol-attributable death.

Practical relevance

The results of this thesis are an essential contribution to the *SCALA Implementation framework*, which is freely available on the SCALA project website: <https://www.scalaproject.eu>. This framework can be used to guide the implementation of health programmes in various regions of the world, being relevant to e.g., program directors and managers working in primary health care centres and municipal health departments; professional groups supporting primary health care providers; and, primary health care providers themselves who are active in their communities to help decrease heavy drinking and the harm done by alcohol.

The three main areas of practical relevance of this thesis are:

1) How to develop effective community support activities in order to bolster the adoption and implementation of alcohol measurement and brief advice at primary health care level (chapters 2 and 3). The materials used to develop the community support packages, including the communication campaigns, are openly available online. The results of our thesis indicate that for an improved implementation of alcohol measurement programmes, these should be embedded within wider community support activities, that would make health care providers more confident to address the topic of alcohol with their patients. Community support activities are best developed and implemented in collaboration with local stakeholders, such as public health experts, in order to reflect and respond to local needs and contexts.

2) How to budget an alcohol measurement and brief advice programme in accordance with available local resources (chapter 4) – the most important cost categories related to the implementation of the programme were identified and described in our paper. The information can be used as a planning tool by policymakers and intervention developers in budgeting efforts for similar interventions.

3) How to calculate the potential economic return-on-investment of the alcohol measurement and brief advice programme, adjusting this local contexts (chapter 5) – the model we used in this paper is described transparently and can be used in order to estimate the possible financial returns of the health programmes from a health care perspective, which is particularly important in the decision making process regarding the adoption of new (health) policies.

Research relevance

The results of this thesis bring several contributions to the existing body of literature regarding the implementation of alcohol measurement and brief advice programmes. The thesis is, to our knowledge, the first to explore the development of a broad package of evidence-based community support activities in the context of alcohol measurement and brief advice. Future research can benefit from these findings, particularly given the current focus on implementation research and the need for effective implementation strategies to accelerate the usage of clinically- and cost-effective health interventions (such as alcohol measurement and brief advice) in health systems across the world.

Also, our research provided evidence that community support can be effective at increasing the adoption and maintenance of alcohol measurement and brief advice - although this was theorized before, empirical evidence was lacking. Moreover, our research

showed how community support can bring about such effects, namely by increasing the self-efficacy of health care providers in delivering the health programme. This is relevant for future research focusing on mechanisms of effect of implementation strategies.

Furthermore, by presenting a transparent cost assessment of alcohol measurement and brief advice, the thesis fills a research gap regarding the costs of this health programme in low and middle-income countries. Also, the model-based return-on-investment analysis presented in chapter 5 can be used in the future by researchers who are interested in evaluating the potential economic benefits of scaling up health programmes in other countries as well, beyond the domain of alcohol.

The four original manuscripts have been published in peer-reviewed open-source journals. Also, our results were presented at various international conferences. The results of this thesis, as part of the wider SCALA project, have been disseminated on several public online platforms, such as CORDIS (a website of the European Commission focusing on dissemination of EU funded research), CAPHRI's website, as well SCALA's website and Twitter account.

Societal relevance

The societal contribution of this thesis can be noted at several levels. Firstly, the topic focused on improving alcohol prevention, which is highly relevant and timely, considering the substantial public health and economic harm caused by alcohol. In terms of numbers, there were 58 primary health centres from six municipalities that participated in the SCALA project, with more than 600 health care providers receiving community support to address the topic of alcohol with their patients – resulting, ultimately, in tens of thousands of patients receiving advice about the risks of alcohol (despite the disruptions in the implementation of the project caused by the COVID-19 pandemic). This is, perhaps, the most straightforward illustration of the societal relevance to which this thesis brought a contribution.

Furthermore, the design of our studies allowed for the active involvement of local stakeholders from the three countries on which our research focused, thereby contributing to an efficient inclusion of our research within local realities and needs. Also, by showing what are the costs and potential return-on-investment of this health programme, our thesis contributes to a more effective translation of research results into wider policy plans.

Finally, our research also focused on building-in sustainability plans beyond the finalization of the SCALA project, by exploring together with the local stakeholders possibilities to incorporate the alcohol measurement and brief advice programme in routine practice. In Colombia and Mexico, several primary health care centres that were not involved in the SCALA project already expressed their interest in utilizing the SCALA package, including the communication campaign materials developed in our community support package. In Peru, sustainability plans were coordinated with the National Mental Health Office of the Ministry of Health, as a result agreeing to incorporate the SCALA programme in the 2022 National Mental Health Budget.

In conclusion, scaling up alcohol measurement and brief advice has the potential to be a cost-effective alcohol prevention intervention in the Latin American region, and beyond. Its adoption and maintenance can be aided by the provision of community support.